

**IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION**

Health Discovery Corporation,

Plaintiff,

v.

Intel Corporation,

Defendant.

Civil Action No. 6:22-cv-00356-ADA

JURY TRIAL DEMANDED

**INTEL CORPORATION’S ANSWER, AFFIRMATIVE DEFENSES,
AND JURY DEMAND TO COMPLAINT FOR PATENT INFRINGEMENT**

Defendant Intel Corporation (“Intel”) hereby answers the Complaint for Patent Infringement (“Complaint”) by Plaintiff Health Discovery Corporation (“Plaintiff” or “HDC”) as follows. Except as expressly admitted herein, each and every allegation in the Complaint is denied.

PARTIES

1. Intel lacks knowledge or sufficient information to form a belief as to the truth of the allegations in paragraph 1 of the Complaint and therefore denies them.

2. Admitted.

3. Intel admits that it has a place of business located at 1300 S. Mopac Expressway, Austin, TX 78746. Intel admits that it is registered to conduct business in the State of Texas, and that Intel is assigned Texas Tax ID 19416727436. Intel further admits that it identified CT Corporation System, 1999 Bryan Street, Suite 900, Dallas, Texas 75201-3136, as its registered agent in the State of Texas. Intel denies any remaining allegations in paragraph 3 of the Complaint.

A SUMMARY OF THE ALLEGED CONTROVERSY

4. Intel admits that the United States Patent and Trademark Office (“Patent Office”) issued U.S. Patent No. 7,177,188 to Plaintiff on October 3, 2006 and U.S. Patent No. 7,685,077 (“the ’077 Patent”) to Intel on March 23, 2010. Intel admits that Plaintiff filed a Request for *Ex Parte* Reexamination of the ’077 Patent with the Patent Office on October 3, 2011. Intel admits that the Patent Office Patent Trial and Appeal Board filed a Declaration – Bd.R. 203(b) declaring an interference between Eric Q. Li and Quian Diao (Junior Party) and Jason Westin and Isabelle Guyon (Senior Party) in Patent Interference No. 106,066 on September 19, 2016. Intel admits that Eleanor M. Musick sent an unsolicited letter dated November 10, 2011 on behalf of Plaintiff addressed to the then-Intel Corporate Vice President & Deputy General Counsel. Intel admits that an Intel Senior Patent Attorney sent letters dated November 21, 2011 and February 21, 2012 to Eleanor M. Musick. Intel admits that the February 21, 2012 letter stated the following:

We recently discussed various Health Discovery Corporation patents. Intel respects intellectual property rights. However, at the conclusion of our discussion I was unaware of any current Intel activity that infringes a Health Discovery Corporation patent.

If my understanding is incorrect and you have a patent that you believe applies to Intel’s products, please provide us with a comparison of your patent to our products. We would gladly review any additional information you would be willing to provide.

Intel admits that it filed Li Substantive Motion 1 (Motion To Redefine The Scope Of The Interference) on January 23, 2017 moving to designate claims 1-38 of related U.S. Patent No. 8,095,483, claims 1-19 of related U.S. Patent No. 7,542,959, and claims 1-23 of related U.S. Patent No. 7,117,188 as corresponding to Count 1. Intel further admits Intel filed Li Substantive Motion 4 (For Judgment Of Unpatentability Under 35 U.S.C. § 101) on January 23, 2017 requesting that judgment be entered that all of the claims be found unpatentable under 35 U.S.C. § 101. Intel

admits that the Patent Trial and Appeal Board filed a Judgment – Bd. R. 127(a) on February 27, 2019, and ordered that judgment on priority was entered against Junior Party Li as to Count 1 and that claims 1-15 of the '077 Patent were cancelled. Intel further admits that the Patent Trial and Appeal Board of the Patent Office instituted *inter partes* review proceedings for Plaintiff's U.S. Patent Nos. 7,177,188, 7,542,959, and 8,095,483 in Case Nos. IPR2021-00550, -00552, and -00554, respectively, which are currently pending. Each of these documents and the records from the proceedings referenced herein speak for themselves. Intel denies any remaining allegations of paragraph 4.

5. Intel lacks knowledge or sufficient information to form a belief as to the truth of the allegations in the first three sentences of paragraph 5 of the Complaint and therefore denies them. Intel denies the remaining allegations of paragraph 5.

6. Intel admits that it offers Intel Distribution for Python as part of the Intel oneAPI AI Analytics Toolkit. The Intel oneAPI AI Analytics Toolkit is available at no cost and also includes Intel Optimization for PyTorch, Intel Optimization for TensorFlow, Intel Optimization of Modin, Intel Neural Compressor, and Model Zoo for Intel Architecture. The Intel oneAPI AI Analytics Toolkit also includes several libraries, including the Intel oneAPI Data Analytics Library (oneDAL) and former Intel Data Analytics Acceleration Library (DAAL). Scikit-learn is an open-source machine learning library. Intel denies the remaining allegations of paragraph 6.

ALLEGED JURISDICTION AND VENUE

7. Intel admits that Plaintiff purports to assert a civil action for patent infringement under the Patent Laws of the United States, Title 35 of the United States Code, 35 U.S.C. §§ 271, *et seq.*, but denies that any grounds exist for Plaintiff's claims.

8. Intel admits that the Court has subject matter jurisdiction over this action pursuant to 28 U.S.C. §§ 1331 and 1338(a). Intel denies that any state-law claims requiring pendant jurisdiction have been asserted in this action. Intel denies any remaining allegations of paragraph 8.

9. Intel admits that this Court has personal jurisdiction over Intel for purposes of this specific action but denies that it has committed any acts of patent infringement in the State of Texas or elsewhere. Intel further admits that it conducts business in the State of Texas and within this judicial district. Intel further admits that it offers for sale and sells products and services worldwide, including in the State of Texas; operates the website at www.intel.com, which is accessible to individuals located worldwide, including in the State of Texas; and has facilities or offices located at 1300 S. Mopac Expressway, Austin, TX 78746. Intel denies the remaining allegations of paragraph 9.

10. Intel admits that this Court has personal jurisdiction over Intel for purposes of this specific action but denies that it has committed any acts of patent infringement in the State of Texas or elsewhere. Intel admits that it conducts business in the State of Texas and in this judicial district and that it offers for sale and sells products and services worldwide, including in the State of Texas and in this judicial district, but denies that any such offers for sale or sales infringe any valid and enforceable claims of the asserted patents in this action. Intel denies the remaining allegations of paragraph 10.

11. Intel admits that the web page located at <https://www.intel.com/content/www/us/en/partner/where-to-buy/overview.html> lists the following companies: Arrow Electronics Inc., DIGI-KEY Corporation, Macnica Americas, and Mouser Electronics, among others. The web page speaks for itself. Intel lacks knowledge or

sufficient information to form a belief as to the truth of the remaining allegations in paragraph 11 of the Complaint and therefore denies them.

12. Intel lacks knowledge or sufficient information to form a belief as to the truth of the allegations in paragraph 12 of the Complaint and therefore denies them.

13. For the limited purpose of this action, Intel does not contest that venue is proper under 28 U.S.C. § 1391 and 28 U.S.C. § 1400(b) but denies that venue is convenient under 28 U.S.C. § 1404. Intel denies the remaining allegations of paragraph 13.

14. Intel admits that it has previously litigated and is currently litigating actions pending before this Court. For the limited purpose of this action, Intel does not contest that venue is proper under 28 U.S.C. § 1391 and 28 U.S.C. § 1400(b) but denies that venue is convenient under 28 U.S.C. § 1404. Intel denies the remaining allegations of paragraph 14.

THE PATENTS-IN-SUIT

15. Intel admits that U.S. Patent No. 7,117,188 (“the ’188 Patent”) is titled “Methods of identifying patterns in biological systems and uses thereof” and that it issued on October 3, 2006. Intel further admits that the ’188 Patent identifies Isabelle Guyon and Jason Aaron Edward Weston as named inventors and Health Discovery Corporation as the assignee. Intel denies that the ’188 Patent was properly issued and that Plaintiff is the proper assignee. Intel lacks knowledge or sufficient information to form a belief as to the truth of the remaining allegations in paragraph 15 of the Complaint and therefore denies them.

16. Intel admits that U.S. Patent No. 7,542,959 (“the ’959 Patent”) is titled “Feature selection method using support vector machine classifier” and that it issued on June 10, 2012. Intel further admits that the ’959 Patent identifies Stephen Barnhill, Isabelle Guyon, and Jason Weston as named inventors and Health Discovery Corporation as the assignee. Intel denies that the ’959

Patent was properly issued and that Plaintiff is the proper assignee. Intel lacks knowledge or sufficient information to form a belief as to the truth of the remaining allegations in paragraph 16 of the Complaint and therefore denies them.

17. Intel admits that U.S. Patent No. 8,095,483 (“the ’483 Patent”) is titled “Support vector machine–recursive feature elimination (SVM-RFE)” and that it issued on January 10, 2012. Intel further admits that the ’483 Patent identifies Jason Weston and Isabelle Guyon as named inventors and Health Discovery Corporation as the assignee. Intel denies that the ’483 Patent was properly issued and that Plaintiff is the proper assignee. Intel lacks knowledge or sufficient information to form a belief as to the truth of the remaining allegations in paragraph 17 of the Complaint and therefore denies them.

18. Intel admits that U.S. Patent No. 10,402,685 (“the ’685 Patent”) is titled “Recursive feature elimination method using support vector machines” and that it issued on September 3, 2019. Intel further admits that the ’685 Patent identifies Isabelle Guyon and Jason Aaron Edward Weston as named inventors and Health Discovery Corporation as the assignee. Intel denies that the ’685 Patent was properly issued and that Plaintiff is the proper assignee. Intel lacks knowledge or sufficient information to form a belief as to the truth of the remaining allegations in paragraph 18 of the Complaint and therefore denies them.

19. There are no allegations to admit or deny in paragraph 19 of the Complaint.

20. Intel lacks knowledge or sufficient information to form a belief as to the truth of the allegations in paragraph 20 of the Complaint and therefore denies them.

21. Intel admits that 35 U.S.C. § 282(a) states “A patent shall be presumed valid.” Intel denies the remaining allegations of paragraph 21.

HDC'S ALLEGED SVM-RFE INVENTORS

22. Intel lacks knowledge or sufficient information to form a belief as to the truth of the allegations in paragraph 22 of the Complaint and therefore denies them.

23. Intel lacks knowledge or sufficient information to form a belief as to the truth of the allegations in paragraph 23 of the Complaint and therefore denies them.

24. Intel lacks knowledge or sufficient information to form a belief as to the truth of the allegations in paragraph 24 of the Complaint and therefore denies them.

25. Intel lacks knowledge or sufficient information to form a belief as to the truth of the allegations in paragraph 25 of the Complaint and therefore denies them.

26. Intel lacks knowledge or sufficient information to form a belief as to the truth of the allegations in paragraph 26 of the Complaint and therefore denies them.

HDC'S ALLEGED SVM-RFE TECHNOLOGY

27. Intel lacks knowledge or sufficient information to form a belief as to the truth of the allegations in paragraph 27 of the Complaint and therefore denies them.

28. Intel lacks knowledge or sufficient information to form a belief as to the truth of the allegations in paragraph 28 of the Complaint and therefore denies them.

29. Intel lacks knowledge or sufficient information to form a belief as to the truth of the allegations in paragraph 29 of the Complaint and therefore denies them.

HDC'S ALLEGED PATENT ELIGIBILITY

30. Intel denies that the sequence disclosed at column 29 lines 28-62 of the '188 Patent supports Plaintiff's characterization of the '188 Patent. Intel admits that the '188 Patent is representative of the asserted patents in this action for purposes of the Court's analysis of patent

eligibility under 35 U.S.C. § 101. The '188 Patent speaks for itself. Intel denies the remaining allegations of paragraph 30.

31. Intel denies that the disclosures at column 64 lines 43-47, column 3 lines 30-43, or column 4 lines 4-34 of the '188 Patent support Plaintiff's alleged characterization of "[a]n SVM." The '188 Patent speaks for itself. Intel lacks knowledge or sufficient information to form a belief as to the truth of the remaining allegations in paragraph 31 of the Complaint and therefore denies them.

32. The '188 Patent speaks for itself. Intel lacks knowledge or sufficient information to form a belief as to the truth of the remaining allegations in paragraph 32 of the Complaint and therefore denies them.

33. Intel lacks knowledge or sufficient information to form a belief as to the truth of the allegations in paragraph 33 of the Complaint and therefore denies them.

34. Intel lacks knowledge or sufficient information to form a belief as to the truth of the allegations in paragraph 34 of the Complaint and therefore denies them.

35. Intel admits that Figure 2 of the '188 Patent is reproduced at the end of paragraph 35, and that the specification for the '188 Patent states that Figure 2 is "a flow chart illustrating an exemplary method 200 for enhancing knowledge that may be discovered from data using a specific type of learning machine known as a support vector machine (SVM)." The '188 Patent speaks for itself. Intel lacks knowledge or sufficient information to form a belief as to the truth of the remaining allegations in paragraph 35 of the Complaint and therefore denies them.

36. Intel admits that claim 1 of the '188 Patent is reproduced at the end of the paragraph. The '188 Patent speaks for itself. Intel lacks knowledge or sufficient information to form a belief

as to the truth of the remaining allegations in paragraph 36 of the Complaint and therefore denies them.

37. The '188 Patent speaks for itself. Intel lacks knowledge or sufficient information to form a belief as to the truth of the allegations in paragraph 37 of the Complaint and therefore denies them.

38. The '188 Patent speaks for itself. Intel lacks knowledge or sufficient information to form a belief as to the truth of the allegations in paragraph 38 of the Complaint and therefore denies them.

39. The '188 Patent speaks for itself. Intel lacks knowledge or sufficient information to form a belief as to the truth of the allegations in paragraph 39 of the Complaint and therefore denies them.

40. Intel admits that Mei-Ling Huang et al., *SVM-RFE Based Feature Selection and Taguchi Parameters Optimization for Multiclass SVM Classifier*, The Scientific World Journal, Vol. 2014, Article ID 795624 (2014) ("Huang"), includes the following passage:

The common methods of feature selection include backward feature selection (BFS), forward feature selection (FFS), and ranker [11]. Another feature selection method, support vector machine recursive feature elimination (SVM-RFE), can filter relevant features and remove relatively insignificant feature variables in order to achieve higher classification performance [12].

Intel admits that reference [12] in Huang is to I. Guyon et al., *Gene selection for cancer classification using support vector machines*, Machine Learning, Vol. 46, no. 1–3, pp. 389–422 (2002). Intel denies the remaining allegations of paragraph 40.

41. Intel admits that it filed PCT No. PCT/CN2005/001242 on August 11, 2005, and that United States Patent Application No. 10/587,094 claiming priority to PCT No. PCT/CN2005/001242 issued to Intel as United States Patent No. 7,685,077 ("the '077 Patent") on

March 23, 2010. Intel further admits that it filed a Response to the Notice of Non-Compliant Amendment mailed May 4, 2009 on June 2, 2009 during prosecution of United States Patent Application No. 10/587,094 before the Patent Office. Intel admits that the Patent Trial and Appeal Board filed a Declaration – Bd.R. 203(b) declaring an interference between Eric Q. Li and Quian Diao (Junior Party) and Jason Westin and Isabelle Guyon (Senior Party) in Patent Interference No. 106,066 on September 19, 2016. Intel admits that the Patent Trial and Appeal Board filed a Judgment – Bd. R. 127(a) on February 27, 2019 and ordered that judgment on priority was entered against Junior Party Li as to Count 1 and that claims 1-15 of the '077 Patent were cancelled. Each of these documents and the records from the proceedings referenced herein speak for themselves. Intel denies the remaining allegations of paragraph 41.

42. Denied.

43. Denied.

44. Intel admits that it filed a Response to the Notice of Non-Compliant Amendment mailed May 4, 2009 on June 2, 2009 during prosecution of United States Patent Application No. 10/587,094 before the Patent Office. Intel further admits that the Patent Office sent a Final Office Action dated July 13, 2009. Each of these documents and the records from the proceeding referenced herein speak for themselves. Intel denies the remaining allegations of paragraph 44.

45. Denied.

46. Intel lacks knowledge or sufficient information to form a belief as to the truth of the allegations in paragraph 46 of the Complaint and therefore denies them.

47. Denied.

48. Denied.

**ALLEGED EXEMPLARY USES OF SVM-RFE
FOR MEDICAL AND NON-MEDICAL APPLICATION**

49. Intel lacks knowledge or sufficient information to form a belief as to the truth of the allegations in paragraph 49 of the Complaint and therefore denies them.

50. Intel lacks knowledge or sufficient information to form a belief as to the truth of the allegations in paragraph 50 of the Complaint and therefore denies them.

51. Intel lacks knowledge or sufficient information to form a belief as to the truth of the allegations in paragraph 51 of the Complaint and therefore denies them.

52. Intel lacks knowledge or sufficient information to form a belief as to the truth of the allegations in paragraph 52 of the Complaint and therefore denies them.

53. Intel lacks knowledge or sufficient information to form a belief as to the truth of the allegations in paragraph 53 of the Complaint and therefore denies them.

ALLEGED HISTORY BETWEEN THE PARTIES

54. Intel responds to the allegations in paragraph 54 as follows:

- a. Intel lacks knowledge or sufficient information to form a belief as to the truth of the “November 11, 2010” allegations in paragraph 54 of the Complaint and therefore denies them.
- b. Intel admits that Plaintiff filed a Request for *Ex Parte* Reexamination of the ’077 Patent with the Patent Office on October 3, 2011. Intel denies any remaining “October 3, 2011” allegations of paragraph 54.
- c. Intel admits that an unsolicited letter identifying Eleanor M. Musick as the sender dated November 10, 2011 was addressed to the then-Intel Corporate Vice President & Deputy General Counsel. The letter speaks for itself. Intel denies the remaining “November 10, 2011” allegations of paragraph 54.

- d. Intel admits that an Intel Senior Patent Attorney spoke with Eleanor M. Musick by telephone in or around December 2011. Intel denies the remaining “December 2011” allegations of paragraph 54.
- e. Intel admits that an Intel Senior Patent Attorney sent a letter to Eleanor M. Musick dated February 21, 2012. The letter speaks for itself. Intel denies the remaining “February 21, 2012” allegations of paragraph 54.
- f. Intel admits that a letter identifying Eleanor M. Musick as the sender dated March 15, 2012 was addressed to an Intel Senior Patent Attorney. The letter speaks for itself. Intel denies the remaining “March 15, 2012” allegations of paragraph 54.
- g. Intel admits that the Patent Office Patent Trial and Appeal Board filed a Declaration – Bd.R. 203(b) declaring an interference between Eric Q. Li and Quian Diao (Junior Party) and Jason Westin and Isabelle Guyon (Senior Party) in Patent Interference No. 106,066 on September 19, 2016. The document speaks for itself. Intel denies the remaining “September 19, 2016” allegations of paragraph 54.
- h. Intel lacks knowledge or sufficient information to form a belief as to the truth of the “September 26, 2016” allegations in paragraph 54 of the Complaint and therefore denies them.
- i. Intel admits that an email was sent from gmcgov@gmcgov.com addressed to an Intel Senior Patent Attorney on September 30, 2016. The email speaks for itself. Intel denies the remaining “September 30, 2016” allegations of paragraph 54.

- j. Intel admits that Intel outside counsel spoke with Eleanor M. Musick by telephone on October 3, 2016. Intel outside counsel received an email identifying Eleanor M. Musick as the sender that same day. The email speaks for itself. Intel denies the remaining “October 3, 2016” allegations of paragraph 54.
- k. Intel admits that Intel outside counsel emailed Eleanor M. Musick on November 3, 2016. The email speaks for itself. Intel denies the remaining “November 2016” allegations of paragraph 54.
- l. Intel admits that it filed the Li Priority Statement, Li Substantive Motion 1 (Motion To Redefine The Scope Of The Interference), and Li Substantive Motion 4 (For Judgment Of Unpatentability Under 35 U.S.C. § 101) in Patent Interference No. 106,066 on January 23, 2017. The documents speak for themselves. Intel denies the remaining “January 23, 2017” allegations of paragraph 54.
- m. Intel admits that outside counsel for Intel and Eleanor M. Musick exchanged email communications designated as subject to Federal Rule of Evidence 408 on April 19, 2017. The emails speak for themselves. Intel denies the remaining “April 19, 2017” allegations of paragraph 54.
- n. Intel admits that an unsolicited letter identifying George McGovern as the sender dated May 1, 2017 was addressed to the then-President of Intel Capital. The letter speaks for itself. Intel responded through outside counsel on April 19, 2017. Intel denies the remaining “May 1, 2017” allegations of paragraph 54.

- o. Intel admits that the Patent Trial and Appeal Board filed a Judgment – Bd. R. 127(a) in Patent Interference No. 106,066 on February 27, 2019 and ordered that judgment on priority was entered against Junior Party Li as to Count 1 and that claims 1-15 of the '077 Patent were cancelled. Intel further admits that the Patent Trial and Appeal Board filed a Decision on Motions 37 C.F.R. § 41.125 in Patent Interference No. 106,066 on February 27, 2019, and dismissed Li Substantive Motion 1, Li Substantive Motion 4, and Weston Motion 1. Intel denies the remaining “February 27, 2019” allegations of paragraph 54.
- p. Intel admits that an unsolicited email sent from gmcgovern@healthdiscoverycorp.com on March 27, 2019 was addressed to the then-President of Intel Capital. The email speaks for itself. Intel lacks knowledge or sufficient information to form a belief as to the truth of the remaining “March 26, 2019” allegations in paragraph 54 of the Complaint and therefore denies them.
- q. Intel admits that the United States Patent and Trademark office issued the '685 Patent on September 3, 2019. The '685 Patent is asserted in this action. Intel denies the remaining “September 3, 2019” allegations of paragraph 54.
- r. Intel admits that it filed petitions for *inter partes* review of the asserted patents before the Patent Trial and Appeal Board in Case Nos. IPR2021-00549, -00550, -00551, -00552, -00553, -00554, and -00555 on February 27, 2021. Intel denies the remaining “February 27, 2021” allegations of paragraph 54.

Intel denies any remaining allegations of paragraph 54.

55. Intel responds to the allegations in paragraph 55 as follows:

- a. Intel admits that the '077 Patent is entitled "Recursive feature eliminating method based on a support vector machine." Intel admits that the Patent Trial and Appeal Board filed a Declaration – Bd.R. 203(b) declaring an interference between Eric Q. Li and Quian Diao (Junior Party) and Jason Westin and Isabelle Guyon (Senior Party) in Patent Interference No. 106,066 on September 19, 2016. Intel admits that the Patent Trial and Appeal Board filed a Judgment – Bd. R. 127(a) on February 27, 2019, and ordered that judgment on priority was entered against Junior Party Li as to Count 1 and that claims 1-15 of the '077 Patent were cancelled. The document speaks for itself. Intel denies the remaining allegations of paragraph 55(a).
- b. Intel admits that Plaintiff filed a Request for *Ex Parte* Reexamination of the '077 Patent with the Patent Office on October 3, 2011. Intel denies any remaining allegations of paragraph 55(b).
- c. Intel admits that an unsolicited letter identifying Eleanor M. Musick as the sender dated November 10, 2011 was addressed to the then-Intel Corporate Vice President & Deputy General Counsel. The letter speaks for itself. Intel denies the remaining allegations of paragraph 55(c).
- d. Intel admits that that an Intel Senior Patent Attorney sent a letter to Eleanor M. Musick dated November 21, 2011. The letter speaks for itself. Intel denies the remaining allegations of paragraph 55(d).

e. Intel admits that an Intel Senior Patent Attorney spoke with Eleanor M. Musick by telephone in or around December 2011. Intel denies the remaining allegations of paragraph 55(e).

f. Intel admits that an Intel Senior Patent Attorney sent a letter to Eleanor M. Musick dated February 21, 2012. The letter stated:

We recently discussed various Health Discovery Corporation patents. Intel respects intellectual property rights. However, at the conclusion of our discussion I was unaware of any current Intel activity that infringes a Health Discovery Corporation patent.

If my understanding is incorrect and you have a patent that you believe applies to Intel's products, please provide us with a comparison of your patent to our products. We would gladly review any additional information you would be willing to provide.

Intel denies the remaining allegations of paragraph 55(f).

g. Intel admits that a letter identifying Eleanor M. Musick as the sender dated March 15, 2012 was addressed to an Intel Senior Patent Attorney. The letter speaks for itself. Intel denies the remaining allegations of paragraph 55(g).

h. Intel admits that the Patent Office Patent Trial and Appeal Board filed a Declaration – Bd.R. 203(b) declaring an interference between Eric Q. Li and Quian Diao (Junior Party) and Jason Westin and Isabelle Guyon (Senior Party) in Patent Interference No. 106,066 on September 19, 2016. The document speaks for itself. Intel denies the remaining allegations of paragraph 55(h).

- i. Intel lacks knowledge or sufficient information to form a belief as to the truth of the allegations in paragraph 55(i) of the Complaint and therefore denies them.
- j. Intel admits that an email was sent from gmcgov@gmcgov.com addressed to an Intel Senior Patent Attorney on September 30, 2016. The email speaks for itself. Intel denies the remaining allegations of paragraph 55(j).
- k. Intel admits that Intel outside counsel spoke with Eleanor M. Musick by telephone on October 3, 2016. Intel outside counsel received an email identifying Eleanor M. Musick as the sender that same day. The email speaks for itself. Intel denies the remaining allegations of paragraph 55(k).
- l. Intel admits that Intel outside counsel emailed Eleanor M. Musick on November 3, 2016. The email speaks for itself. Intel denies the remaining allegations of paragraph 55(l).
- m. Intel admits that it filed the Li Priority Statement in Patent Interference No. 106,066 on January 23, 2017. The document speaks for itself. Intel denies the remaining allegations of paragraph 55(m).
- n. Intel admits that it filed the Li Substantive Motion 4 (For Judgment Of Unpatentability Under 35 U.S.C. § 101) in Patent Interference No. 106,066 on January 23, 2017. The document speaks for itself. Intel denies the remaining allegations of paragraph 55(n).
- o. Intel admits that it filed the Li Substantive Motion 1 (Motion To Redefine The Scope Of The Interference) in Patent Interference No. 106,066 on

January 23, 2017. The document speaks for itself. Intel denies the remaining allegations of paragraph 55(o).

- p. Intel admits that outside counsel for Intel and Eleanor M. Musick exchanged email communications designated as subject to Federal Rule of Evidence 408 on April 19, 2017. The emails speak for themselves. Intel denies the remaining allegations of paragraph 55(p).
- q. Intel admits that an unsolicited letter identifying George McGovern as the sender dated May 1, 2017 was addressed to the then-President of Intel Capital. The letter speaks for itself. Intel responded through outside counsel on April 19, 2017. Intel denies the remaining allegations of paragraph 55(q).
- r. Intel admits that the Patent Trial and Appeal Board filed a Judgment – Bd. R. 127(a) in Patent Interference No. 106,066 February 27, 2019, and ordered that judgment on priority was entered against Junior Party Li as to Count 1 and that claims 1-15 of the '077 Patent were cancelled. Intel further admits that the Patent Trial and Appeal Board filed a Decision on Motions 37 C.F.R. § 41.125 in Patent Interference No. 106,066 on February 27, 2019, and dismissed Li Substantive Motion 1, Li Substantive Motion 4, and Weston Motion 1. Intel denies the remaining allegations of paragraph 55(r).
- s. Intel admits that an unsolicited email sent from gmcgovern@healthdiscoverycorp.com on March 27, 2019 was addressed to the then-President of Intel Capital. The email speaks for itself. Intel lacks knowledge or sufficient information to form a belief as to the truth of

the remaining allegations in paragraph 55(s) of the Complaint regarding a purported “March 26, 2019” email and therefore denies them.

- t. Intel admits that the Patent Office issued U.S. Patent No. 10,402,685 on September 3, 2019. Intel denies the remaining allegations of paragraph 55(t).

Intel denies any remaining allegations of paragraph 55.

56. Intel admits that it filed Li Substantive Motion 1 (Motion To Redefine The Scope Of The Interference) on January 23, 2017, moving to designate claims 1-38 of related U.S. Patent No. 8,095,483, claims 1-19 of related U.S. Patent No. 7,542,959, and claims 1-23 of related U.S. Patent No. 7,117,188 as corresponding to Count 1. Intel further admits that it also filed Li Substantive Motion 4 (For Judgment Of Unpatentability Under 35 U.S.C. § 101) on January 23, 2017, requesting that judgment be entered that all of the claims be found unpatentable under 35 U.S.C. § 101. Intel denies the remaining allegations of paragraph 56.

ALLEGED SVM-RFE IN SCIKIT-LEARN

57. Intel admits that Scikit-learn is an open-source software machine learning library for the Python programming language developed and managed by Scikit-learn contributors. *See, e.g.,* Pedregosa et al., *Scikit-learn: Machine Learning in Python*, JMLR 12, pp. 2825-2830, 2011; <https://scikit-learn.org/stable/about.html#citing-scikit-learn> (last accessed May 25, 2022). Intel admits that an excerpt from a third-party web page titled “sklearn.feature_selection.RFE” available at https://scikit-learn.org/stable/modules/generated/sklearn.feature_selection.RFE.html appears to be depicted in paragraph 57. This web page speaks for itself. Intel lacks knowledge or sufficient information to form a belief as to the truth of the remaining allegations in paragraph 57 of the Complaint and therefore denies them.

58. Intel admits that excerpts from third-party web pages titled “sklearn.feature_selection.RFE,” “Recursive feature elimination,” and “Version 0.12.1” available at https://scikit-learn.org/stable/modules/generated/sklearn.feature_selection.RFE.html, https://scikit-learn.org/stable/auto_examples/feature_selection/plot_rfe_digits.html#sphx-glr-auto-examples-feature-selection-plot-rfe-digits-py, and https://scikit-learn.org/stable/whats_new/older_versions.html#earlier-versions appear to be depicted in paragraph 58. These web pages speak for themselves. Intel lacks knowledge or sufficient information to form a belief as to the truth of the remaining allegations in paragraph 58 of the Complaint and therefore denies them.

INTEL’S ACCUSED PRODUCTS

59. Denied.

60. Intel admits that the Intel oneAPI is a free, open, cross-industry, standards-based, unified, multiarchitecture, and multi-vendor programming model. The Intel oneAPI Toolkits include the Intel oneAPI Base Toolkit, Intel oneAPI HPC Toolkit, Intel oneAPI AI Analytics Toolkit, Intel oneAPI Rendering Toolkit, Intel oneAPI IoT Toolkit, and the Intel System Bring-up Toolkit. The webpage available at <https://www.oneapi.io/> speaks for itself. Intel denies the remaining allegations of paragraph 60.

61. Intel admits that the Intel oneAPI AI Analytics Toolkit is one toolkit available in the Intel oneAPI. Intel admits that excerpts from the “Intel® oneAPI AI Analytics Toolkit (AI Kit)” and “Intel® Distribution for Python* 2017 Update 2 Release Notes” web pages available at <https://www.intel.com/content/www/us/en/developer/tools/oneapi/ai-analytics-toolkit.html#gs.10rzo0> and <https://www.intel.com/content/dam/develop/external/us/en/documents/intel-distribution->

[python2017u2-release-notes.pdf](#) appear to be depicted in paragraph 61. These web pages speak for themselves. Intel lacks knowledge or sufficient information to form a belief as to the truth of the remaining allegations in paragraph 61 of the Complaint and therefore denies them.

62. Intel admits that the Intel oneAPI Data Analytics Library (oneDAL) makes available algorithmic building blocks for various stages of data analytics. *See, e.g.*, “Intel® oneAPI Data Analytics Library,” <https://www.intel.com/content/www/us/en/developer/tools/oneapi/onedal.html#gs.10upay> (last accessed May 17, 2022). Intel admits that excerpts from the “Intel® oneAPI AI Analytics Toolkit (AI Kit),” “Intel® Data Analytics Acceleration Library 2020 Update 2 Developer Guide,” and “Scikit-Learn API” web pages and guide available at <https://www.intel.com/content/www/us/en/developer/tools/oneapi/ai-analytics-toolkit.html#gs.10rzo0>, <https://cdrdv2.intel.com/v1/dl/getContent/671357?explicitVersion=true>, and <https://intelpython.github.io/daal4py/sklearn.html> appear to be depicted in paragraph 62. These documents speak for themselves. Intel lacks knowledge or sufficient information to form a belief as to the truth of the remaining allegations in paragraph 62 of the Complaint and therefore denies them.

63. Intel admits that the Intel Extension for Scikit-learn is an extension package available for download at no cost that patches Scikit-learn estimators to use the Intel oneAPI Data Analytics Library (oneDAL). Intel admits that an excerpt from the “Intel® Extension for Scikit-learn*” web page available at <https://github.com/intel/scikit-learn-intelex> appears to be depicted in paragraph 63. This web page speaks for itself. Intel denies the remaining allegations of paragraph 63.

64. Intel admits that the Intel DevCloud is a cloud-hosted hardware and software platform. The Intel DevCloud includes access to the Intel oneAPI toolkits and components. Intel admits that excerpts from the “Intel® DevCloud” web page available at <https://www.intel.com/content/www/us/en/developer/tools/devcloud/overview.html> appear to be depicted and quoted in paragraph 64. This web page speaks for itself. Intel denies the remaining allegations of paragraph 64.

65. Intel admits only the following:

- An excerpt from the “Intel® Xeon® Processors” web page available at <https://www.intel.com/content/www/us/en/products/details/processors/xeon.html> appears to be depicted in paragraph 65. This web page speaks for itself.
- An excerpt from the “Intel® Core™ Processor Family” web page available at <https://www.intel.com/content/www/us/en/products/details/processors/core.html> appears to be depicted in paragraph 65. This web page speaks for itself.
- An excerpt from the “Intel® Atom® Processor Family” web page available at <https://www.intel.com/content/www/us/en/products/details/processors/atom.html> appears to be depicted in paragraph 65. This web page speaks for itself.

Intel denies the remaining allegations of paragraph 65 and specifically denies that any of Plaintiff’s technologies interact with or are integrated and used in developing, testing, and the functioning of any Intel products.

66. Intel admits that the publications and presentations listed in paragraph 66 of the Complaint speak for themselves. Intel denies the remaining allegations of paragraph 66 and specifically denies that any of its publications or presentations state that Intel was using SVM-RFE in the development and optimization of any of its products.

67. Denied.

COUNT I: ALLEGED INFRINGEMENT OF THE '188 PATENT

68. Intel incorporates by reference its responses to the above paragraphs.

69. Denied.

70. Denied.

71. Intel admits that 35 U.S.C. § 282 states “A patent shall be presumed valid.” Intel denies the remaining allegations of paragraph 71.

72. The '188 Patent speaks for itself. Intel denies the remaining allegations of paragraph 72.

73. Intel lacks knowledge or sufficient information to form a belief as to the truth of the allegations in paragraph 73 of the Complaint and therefore denies them.

74. Intel admits that the '188 Patent is listed on an Information Disclosure Citation form filed on May 15, 2008, in connection with U.S. Patent Application No. 12/152,568, which issued as U.S. Patent No. 8,108,324, titled “Forward feature selection for support vector machines,” on January 31, 2012. Intel denies the remaining allegations of paragraph 74.

75. Intel admits that the '188 Patent is listed on an Information Disclosure Statement by Applicant filed on December 22, 2011, in connection with U.S. Patent Application No. 13/334,313, which issued as U.S. Patent No. 8,756,174, titled “Forward feature selection for support vector machines,” on June 17, 2014. The Examiner signed the Information Disclosure Statement by Applicant on or about September 30, 2013, and it was transmitted on October 7, 2013. U.S. Patent No. 8,756,174 is a continuation of U.S. Application No. 12/152,568. Intel denies the remaining allegations of paragraph 75.

76. Intel admits that it filed PCT No. PCT/CN2005/001242 on August 11, 2005, and that United States Patent Application No. 10/587,094, claiming priority to PCT No. PCT/CN2005/001242, issued to Intel as the '077 Patent on March 23, 2010. Intel further admits that United States Patent Application Publication No. US20030172043A1 was listed in an International Search Report mailed on June 15, 2006, in connection with PCT No. PCT/CN2005/001242. Intel denies the remaining allegations of paragraph 76.

77. Intel admits that Eleanor M. Musick sent an unsolicited letter dated November 10, 2011 on behalf of Plaintiff. The letter referred to an *Ex Parte* Reexamination Request dated October 3, 2011, filed in connection with U.S. Patent No. 7,685,077. The letter also referred to U.S. Patent Nos. 7,117,188 and 7,542,959, U.S. Patent Application Publication Nos. US2011/0106735 and US2011/0119213, and additional, unidentified “issued and pending foreign patents.” Intel denies that the letter identified any alleged infringement of the '188 Patent by Intel or any Intel product or service. Intel admits that Steven Rodgers was Intel’s Vice President of Legal and Corporate Affairs in November 2011. Intel denies any remaining allegations of paragraph 77.

78. Denied.

ALLEGED DIRECT INFRINGEMENT OF THE '188 PATENT

79. Denied.

80. Intel admits that the publications and presentations listed in paragraph 80 of the Complaint speak for themselves. Intel denies the remaining allegations of paragraph 80 and specifically denies that any of its publications or presentations state that Intel was using SVM-RFE in the development and optimization of any of its products.

81. Denied.

82. Denied.

83. Denied.

84. Denied.

85. Denied.

86. Denied.

87. Denied.

88. Denied.

ALLEGED INDUCED INFRINGEMENT OF THE '188 PATENT

89. Denied.

90. Denied.

91. Denied.

92. Denied.

93. Denied.

94. Denied.

ALLEGED CONTRIBUTORY INFRINGEMENT OF THE '188 PATENT

95. Denied.

96. Denied.

97. Denied.

98. Denied.

ALLEGED WILLFUL INFRINGEMENT OF THE '188 PATENT

99. Denied.

100. Intel incorporates by reference its responses to paragraphs 30-31. Intel denies any remaining allegations of paragraph 100.

101. Denied.

102. Denied.

103. Denied.

104. Denied.

105. Denied.

COUNT II: ALLEGED INFRINGEMENT OF THE '959 PATENT

106. Intel incorporates by reference its responses to the above paragraphs.

107. Denied.

108. Denied.

109. Intel admits that 35 U.S.C. § 282 states “A patent shall be presumed valid.” Intel denies the remaining allegations of paragraph 109.

110. The '959 Patent speaks for itself. Intel denies the remaining allegations of paragraph 110.

111. Intel lacks knowledge or sufficient information to form a belief as to the truth of the allegations in paragraph 111 of the Complaint and therefore denies them.

112. Intel admits the following:

- Intel admits that it filed U.S. Patent Application No. 10/199,581 on July 19, 2002, which issued as U.S. Patent No. 7,146,050 (“the '050 Patent”) on December 5, 2006. The '050 Patent is titled “Facial classification of statis images using support vector machines.” Intel denies that the '050 Patent cites the '959 Patent. The '050 Patent lists U.S. Patent Nos. 6,658,395 and 6,882,990 as “References Cited.” Neither U.S. Patent No. 6,658,395 nor U.S. Patent No. 6,882,990 is asserted in this action.

- Intel admits that it filed U.S. Patent Application No. 10/199,744 on July 19, 2002, which issued as U.S. Patent No. 7,174,040 (“the ’040 Patent”) on February 6, 2007. The ’040 Patent is titled “Fast method for training and evaluating support vector machines with a large set of linear features.” Intel denies that the ’040 Patent cites the ’959 Patent. The ’040 Patent lists U.S. Patent Nos. 6,658,395 and 6,882,990 as “References Cited.” Neither U.S. Patent No. 6,658,395 nor U.S. Patent No. 6,882,990 is asserted in this action.

Intel denies the remaining allegations of paragraph 112.

113. Intel admits that Eric Q. Li and Qian Diao are the named inventors of the ’077 Patent, and that the ’077 Patent was included in the Patent Trial and Appeal Board’s Patent Interference No. 106,066 between Eric Q. Li and Quian Diao (Junior Party) and Jason Westin and Isabelle Guyon (Senior Party) declared on September 19, 2016. Intel further admits that Eric Q. Li and Qian Diao are two named authors on Y. Chen, et al., “Performance Scalability of Data-Mining Workloads in Bioinformatics,” *Intel Technology Journal*, Vol. 9, No. 2, May 19, 2005 (the “Chen Article”). Intel denies that the Chen Article cites the ’959 Patent. Intel denies any remaining allegations of paragraph 113.

114. Intel admits that Eleanor M. Musick sent an unsolicited letter dated November 10, 2011 on behalf of Plaintiff. The letter referred to an *Ex Parte* Reexamination Request dated October 3, 2011, filed in connection with U.S. Patent No. 7,685,077. The letter also referred to U.S. Patent Nos. 7,117,188 and 7,542,959, U.S. Patent Application Publication Nos. US2011/0106735 and US2011/0119213, and additional, unidentified “issued and pending foreign patents.” Intel denies that the letter identified any alleged infringement of the ’959 Patent by Intel or any Intel product or service. Intel admits that Steven Rodgers was Intel’s Vice President of

Legal and Corporate Affairs in November 2011. Intel denies any remaining allegations of paragraph 114.

115. Denied.

ALLEGED DIRECT INFRINGEMENT OF THE '959 PATENT

116. Denied.

117. Denied.

118. Denied.

119. The '959 Patent speaks for itself. Intel denies the remaining allegations of paragraph 119.

120. Denied.

ALLEGED INDUCED INFRINGEMENT OF THE '959 PATENT

121. The '959 Patent speaks for itself. Intel denies the remaining allegations of paragraph 121.

122. Denied.

ALLEGED CONTRIBUTORY INFRINGEMENT OF THE '959 PATENT

123. The '959 Patent speaks for itself. Intel denies the remaining allegations of paragraph 123.

ALLEGED WILLFUL INFRINGEMENT OF THE '959 PATENT

124. Denied.

125. Intel incorporates by reference its response to paragraph 100. Intel denies any remaining allegations of paragraph 125.

126. Denied.

127. Denied.

**ALLEGED DAMAGE TO HDC FROM
ALLEGED INFRINGEMENT OF THE '959 PATENT**

128. Intel incorporates by reference its responses to the above paragraphs, including paragraphs 103-105. Intel denies the remaining allegations of paragraph 128.

COUNT III: ALLEGED INFRINGEMENT OF THE '483 PATENT

129. Intel incorporates by reference its responses to the above paragraphs.

130. Denied.

131. Denied.

132. Intel admits that 35 U.S.C. § 282 states “A patent shall be presumed valid.” Intel denies the remaining allegations of paragraph 132.

133. The '483 Patent speaks for itself. Intel denies the remaining allegations of paragraph 133.

134. Intel lacks knowledge or sufficient information to form a belief as to the truth of the allegations in paragraph 134 of the Complaint and therefore denies them.

135. Intel admits that it filed U.S. Patent Application No. 12/152,568 on May 15, 2008, which issued as U.S. Patent No. 8,108,324 (“the '234 Patent”) on January 31, 2012. The '234 Patent is titled “Forward feature selection for support vector machines.” Intel denies that the '324 Patent cites the '483 Patent. The '324 Patent lists U.S. Patent No. 7,475,048 as one of the “References Cited.” U.S. Patent No. 7,475,048 is not asserted in this action. Intel denies the remaining allegations of paragraph 135.

136. Intel admits that Eric Q. Li and Qian Diao are the named inventors of the '077 Patent, and that the '077 Patent was included in the Patent Trial and Appeal Board’s Patent Interference No. 106,066 between Eric Q. Li and Quian Diao (Junior Party) and Jason Westin and Isabelle Guyon (Senior Party) declared on September 19, 2016. Intel further admits that Eric Q.

Li and Qian Diao are two named authors on Y. Chen, et al., “Performance Scalability of Data-Mining Workloads in Bioinformatics,” *Intel Technology Journal*, Vol. 9, No. 2 (May 19, 2005) (the “Chen Article”). Intel denies that the Chen Article cites the ’483 Patent. Intel denies any remaining allegations of paragraph 136.

137. Intel admits that Eleanor M. Musick sent an unsolicited letter dated November 10, 2011 on behalf of Plaintiff. The letter referred to an *Ex Parte* Reexamination Request dated October 3, 2011, filed in connection with U.S. Patent No. 7,685,077. The letter also referred to U.S. Patent Nos. 7,117,188 and 7,542,959, U.S. Patent Application Publication Nos. US2011/0106735 and US2011/0119213, and additional, unidentified “issued and pending foreign patents.” Intel denies that the letter identified any alleged infringement of the ’959 Patent by Intel or any Intel product or service. Intel admits that Steven Rodgers was Intel’s Vice President of Legal and Corporate Affairs in November 2011. Intel denies any remaining allegations of paragraph 137.

138. Denied.

ALLEGED DIRECT INFRINGEMENT OF THE ’483 PATENT

139. Denied.

140. Denied.

141. The ’483 Patent speaks for itself. Intel denies the remaining allegations of paragraph 141.

142. Denied.

143. Denied.

144. Denied.

145. Denied.

146. The '483 Patent speaks for itself. Intel admits that certain kernel functions are available in OneDAL. *See, e.g.,* <https://www.intel.com/content/www/us/en/develop/documentation/onedal-developer-guide-and-reference/top/c-api/algorithms/kernel-functions.html> (last accessed May 26, 2022). These documents speak for themselves. Intel denies the remaining allegations of paragraph 146.

ALLEGED INDUCED INFRINGEMENT OF THE '483 PATENT

147. The '483 Patent speaks for itself. Intel denies the remaining allegations of paragraph 147.

148. The '483 Patent speaks for itself. Intel denies the remaining allegations of paragraph 148.

149. Denied.

ALLEGED CONTRIBUTORY INFRINGEMENT OF THE '483 PATENT

150. The '483 Patent speaks for itself. Intel denies the remaining allegations of paragraph 150.

151. The '483 Patent speaks for itself. Intel denies the remaining allegations of paragraph 151.

ALLEGED WILLFUL INFRINGEMENT OF THE '483 PATENT

152. Denied.

153. Intel incorporates by reference its response to paragraph 100. Intel denies any remaining allegations of paragraph 153.

154. Denied.

155. Denied.

**ALLEGED DAMAGE TO HDC FROM
ALLEGED INFRINGEMENT OF THE '483 PATENT**

156. Intel incorporates by reference its responses to the above paragraphs, including paragraphs 103-105. Intel denies the remaining allegations of paragraph 156.

COUNT IV: ALLEGED INFRINGEMENT OF THE '685 PATENT

157. Intel incorporates by reference its responses to the above paragraphs.

158. Denied.

159. Denied.

160. Intel admits that 35 U.S.C. § 282 states “A patent shall be presumed valid.” Intel denies the remaining allegations of paragraph 160.

161. The '685 Patent speaks for itself. Intel denies the remaining allegations of paragraph 161.

162. Intel lacks knowledge or sufficient information to form a belief as to the truth of the allegations in paragraph 162 of the Complaint and therefore denies them.

163. Intel admits that the Patent Office issued the '077 Patent to Intel on March 23, 2010. Intel admits that Plaintiff filed a Request for *Ex Parte* Reexamination of the '077 Patent with the Patent Office on October 3, 2011. Intel admits that the Patent Office Patent Trial and Appeal Board filed a Declaration – Bd.R. 203(b) declaring an interference between Eric Q. Li and Quian Diao (Junior Party) and Jason Westin and Isabelle Guyon (Senior Party) in Patent Interference No. 106,066 on September 19, 2016. Intel admits that it filed Li Substantive Motion 1 (Motion To Redefine The Scope Of The Interference) on January 23, 2017, moving to designate claims 1-38 of related U.S. Patent No. 8,095,483, claims 1-19 of related U.S. Patent No. 7,542,959, and claims 1-23 of related U.S. Patent No. 7,117,188 as corresponding to Count 1. Intel further admits that it filed Li Substantive Motion 4 (For Judgment Of Unpatentability Under 35 U.S.C. § 101) on

January 23, 2017, requesting that judgment be entered that all of the claims be found unpatentable under 35 U.S.C. § 101. Intel admits that the Patent Trial and Appeal Board filed a Judgment – Bd. R. 127(a) on February 27, 2019, and ordered that judgment on priority was entered against Junior Party Li as to Count 1 and that claims 1-15 of the '077 Patent were cancelled. Each of these documents and the records from the proceedings referenced herein speak for themselves. Intel denies any remaining allegations of paragraph 163.

164. Denied.

ALLEGED DIRECT INFRINGEMENT OF THE '685 PATENT

165. Denied.

166. Denied.

167. Denied.

168. Denied.

169. The '685 Patent speaks for itself. Intel denies the remaining allegations of paragraph 169.

ALLEGED INDUCED INFRINGEMENT OF THE '685 PATENT

170. The '685 Patent speaks for itself. Intel denies the remaining allegations of paragraph 170.

171. Denied.

ALLEGED CONTRIBUTORY INFRINGEMENT OF THE '685 PATENT

172. The '685 Patent speaks for itself. Intel denies the remaining allegations of paragraph 172.

ALLEGED WILLFUL INFRINGEMENT OF THE '685 PATENT

173. Denied.

174. Intel incorporates by reference its response to paragraph 100. Intel denies any remaining allegations of paragraph 174.

175. Denied.

176. Denied.

**ALLEGED DAMAGE TO HDC FROM
ALLEGED INFRINGEMENT OF THE '685 PATENT**

177. Intel incorporates by reference its responses to the above paragraphs, including paragraphs 103-105. Intel denies the remaining allegations of paragraph 177.

PRAYER FOR RELIEF

Intel denies that Plaintiff is entitled to the relief requested or to any other relief.

GENERAL DENIAL

Except as expressly admitted herein, Intel denies each and every allegation contained in Plaintiff's Complaint.

JURY TRIAL DEMAND

Intel admits that Plaintiff demands a trial by jury of all matters to which it is entitled to trial by jury pursuant to Federal Rule of Civil Procedure 38.

DEFENSES

Pursuant to Federal Rule of Civil Procedure 8(b) and (c), without assuming any burden that it would not otherwise bear, without reducing or removing Plaintiff's burdens of proof on its affirmative claims against Intel, without waiving its right to assert additional defenses, and solely to the extent deemed necessary by the Court to maintain any or all of the following defenses, Intel asserts the following defenses to Plaintiff's Complaint:

FIRST DEFENSE

(Failure to State a Claim)

178. Plaintiff has failed to state a claim upon which relief can be granted.

SECOND DEFENSE

(Non-Infringement)

179. Intel's products and/or services accused of infringement have not infringed, and do not infringe, directly or indirectly, any valid or enforceable claim of the '188 Patent, '959 Patent, '483 Patent, or '685 Patent, either literally or under the doctrine of equivalents, and has not otherwise committed any acts in violation of 35 U.S.C. § 271 or 19 U.S.C. § 1337.

THIRD DEFENSE

(Invalidity)

180. The asserted claims of the '188 Patent, '959 Patent, '483 Patent, and '685 Patent are each invalid for failure to meet the requirements set forth in pre-AIA 35 U.S.C. §§ 101, 102, 103, and/or 112.

181. The asserted claims of the '188 Patent, '959 Patent, '483 Patent, and '685 Patent are invalid under 35 U.S.C. § 102 and/or § 103 as anticipated or rendered obvious in view of at least the following exemplary prior art references alone or in combination with one or more references:

- U.S. Patent No. 6,122,628 ("Castelli");
- U.S. Patent No. 6,327,581 ("Platt");
- U.S. Patent No. 5,649,068 ("Boser");
- Mukherjee, et al., *Support Vector Machine Classification of Microarray Data*, A.I. Memo, No. 1677 (1998) ("Mukherjee");
- Kohavi, et al., *Wrappers for Feature Subset Selection*, Artificial Intelligence, Vol. 97, 273-324 (Dec. 1997) ("Kohavi");

- Cortes, et al., *Support-Vector Networks*, Machine Learning, Vol. 20, No. 3, 273-297 (Mar. 8, 1995) (“Cortes”);
- Hocking, et al., *Selection of the Best Subset in Regression Analysis*, Technometrics, Vol. 9, No. 4, 531-540 (Nov. 1967) (“Hocking”);
- Cristianini, et al., *An Introduction to Support vector machines and Other Kernel-based Learning Methods*, Cambridge University Press (Oct. 18, 1999) (“Cristianini”);
- Saunders, et al., *Support Vector Machine Reference Manual*, Department of Computer Science, Royal Holloway, CSD-TR-98-03 (1998) (“Saunders”);
- Burros, *Three Rational Methods for Reduction of Skewness*, Journal Psychological Bulletin, Vol. 48, No. 6 (March 15, 1951), Narendra, et al., *A Branch and Bound Algorithm for Feature Subset Selection*, IEEE Transactions on Computers, Vol. C-26, No. 9, 917-929 (Sept. 1977) (“Burros”); and
- Bradley, *Mathematical Programming Approaches to Machine Learning and Data Mining*, University of Wisconsin Madison (1998) (“Bradley”).

The prior art also includes prior art systems including, but not limited to, the Gunn MATLAB Support Vector Machine Toolbox available as early as February 10, 1998, SVM Light available as early as November 26, 1997, and Waikato Environment for Knowledge Analysis (“Weka”) as early as February 22, 2000. Intel incorporates by reference Intel Corporation’s Final Invalidity Contentions served on July 30, 2021 in *Health Discovery Corporation v. Intel Corporation*, Case No. 6:20-cv-00666-ADA (W.D. Tex.).

182. Intel filed petitions for *inter partes* review of the ’188 Patent, ’959 Patent, ’483 Patent, and ’685 Patent. *See Intel Corp. v. Health Discovery Corporation*, IPR2021-00549;

IPR2021-00550; IPR2021-00551; IPR2021-00552; IPR2021-00553; IPR2021-00554; IPR2021-00555. The Patent Trial and Appeal Board (the “Board”) instituted *inter partes* review for the ’188 Patent, ’959 Patent, and ’483 Patent. *See Intel Corp. v. Health Discovery Corporation*, IPR2021-00550, Paper 19; IPR2021-00552, Paper 21; IPR2021-00554, Paper 19. Oral arguments for all three instituted reviews are currently scheduled for June 14, 2022.

183. The Board instituted review of the ’188 Patent in IPR2021-00550 on the following grounds:

Ground		Combination	Claims
1	§103	Kohavi, Boser, Hocking	1, 3-8, 10, 13-17, 19-23
2	§103	Kohavi, Boser, Hocking, Cristianini	8, 13
3	§103	Kohavi, Boser, Hocking, Cortes	2
4	§103	Kohavi, Boser, Hocking, Saunders	9
5	§103	Kohavi, Boser, Hocking, Castelli	11-12
6	§103	Kohavi, Boser, Hocking, Burros	18

See Decision Granting Institution of *Inter Partes* Review, Paper 19, Case No. IPR2021-00550 (Sept. 7, 2021) at 17 in **Exhibit A**.

184. The Board instituted review of the ’959 Patent in IPR2021-00552 on the following grounds:

Ground		Combination	Claims
1	§103	Kohavi, Boser, and Hocking	1, 5-6, 10, 12, 16
2	§103	Kohavi, Boser, Hocking, and Cristianini	10

Decision Granting Institution of *Inter Partes* Review, Paper 21, Case No. IPR2021-00552 (Sept. 14, 2021) at 16 in **Exhibit B**.

185. The Board instituted review of the '483 Patent in IPR2021-00554 on the following grounds:

Ground		Combination	Claims
1	§103	Kohavi, Boser, and Hocking	1, 5-7, 13, 18, 22, and 32
2	§103	Kohavi, Boser, Hocking, and Cristianini	5

Decision Granting Institution of *Inter Partes* Review, Paper 19, Case No. IPR2021-00554 (Sept. 20, 2021) at 19 in **Exhibit C**.

186. All asserted claims of the '188 Patent, '483 Patent, and '685 Patent are further invalid for obviousness-type double patenting because the claims filed later in time are not patentably distinct from the earlier claims. Specifically, the asserted claims of the '483 Patent are invalid for obviousness-type double patenting over the claims of the '959 Patent. The asserted claims of the '188 Patent are invalid for obviousness-type double patenting over the claims of the '483 Patent and '959 Patent. The asserted claims of the '685 Patent are invalid for obviousness-type double patenting over the claims of the '483 Patent, '959 Patent, and '188 Patent.

187. All asserted claims of the '483 Patent, '188 Patent, and '685 Patent share overlapping subject matter, *i.e.*, the claims all allegedly cover “SVM-RFE.” For example, Plaintiff has described the asserted claims as follows: “[T]he SVM-RFE process of Guyon and Weston [and/or Barnhill], described and claimed in [each of the] patent[s]....” IPR2021-00550, Paper 7 at 34–38; IPR2021-00551, Paper 9 at 35–39; IPR2021-00553, Paper 9 at 38–42; IPR2021-00555,

Paper 9 at 33–37. The '188 Patent, '959 Patent, and '483 Patent have all expired, so the asserted claims cannot be remedied through a terminal disclaimer.

FOURTH DEFENSE

(Unpatentable Subject Matter)

188. The asserted claims of the '188 Patent, '959 Patent, '483 Patent, and '685 Patent are invalid under 35 U.S.C. § 101 because they cover unpatentable subject matter.

189. Plaintiff filed a Complaint for Patent Infringement against Intel on July 23, 2020 in an action styled *Health Discovery Corporation v. Intel Corporation*, Case No. 6:20-cv-00666 (W.D. Tex.). Plaintiff alleged that Intel directly and indirectly infringed each of the four asserted patents in this action: the '188 Patent, the '959 Patent, the '483 Patent, and the '685 Patent. A copy of the July 23, 2020 Complaint for Patent Infringement is attached in **Exhibit D**.

190. Intel filed a motion to dismiss Plaintiff's complaint in the prior infringement suit on October 19, 2020 on the basis that all of the asserted claims of the Asserted Patents are ineligible for patent protection under 35 U.S.C. § 101. *See* Intel's Motion to Dismiss, Dkt. 12 at 1-2, *Health Discovery Corporation v. Intel Corporation*, Case No. 6:20-cv-00666-ADA (W.D. Tex. Oct. 19, 2020) in **Exhibit E**. Intel further moved to dismiss Plaintiff's complaint for failure to state a claim for direct and indirect infringement. *Id.* Plaintiff opposed. *See generally* Plaintiff's Opposition to Intel's Motion to Dismiss, Dkt. 21, *Health Discovery Corporation v. Intel Corporation*, Case No. 6:20-cv-00666-ADA (W.D. Tex. Nov. 23, 2020) **Exhibit F**.

191. The Court held a claim construction hearing on the disputed claim terms of the '188 Patent, '959 Patent, '483 Patent, and '685 Patent on June 3, 2021. *See* Updated Joint Claim Construction Statement and Exhibit A, Dkt. 48 & 48-1, *Health Discovery Corporation v. Intel*

Corporation, Case No. 6:20-cv-00666-ADA (W.D. Tex. June 1, 2021) in **Exhibit G**. The Court’s Claim Construction Order issued on June 3, 2021, and is attached in **Exhibit H**.

192. The Court granted-in-part Intel’s motion to dismiss to the extent Intel moved to dismiss Plaintiff’s claims under 35 U.S.C. § 101 on December 27, 2021. *See* Memorandum Opinion and Order Granting-in-Part and Denying-as-Moot-in-Part Intel Corporation’s Motion to Dismiss, Dkt. 66, *Health Discovery Corporation v. Intel Corporation*, Case No. 6:20-cv-00666-ADA (W.D. Tex. Dec. 27, 2021) (granting Intel’s motion to dismiss Plaintiff’s claims for infringement of the ’188 Patent, ’959 Patent, ’483 Patent, and ’685 Patent) in **Exhibit I**.

193. The Court specifically found that “the asserted patents’ written description merely describes improving a mathematical analysis.” *Id.*, 20. “Here, the written description explained how conventional methods reduced feature size in data sets by ranking and eliminating features based on, for example, correlation coefficients, whereas the claimed invention ranks and eliminates features using SVM-RFE, a purportedly novel but nevertheless mathematical technique.” *Id.*, 21.

[T]he claims here merely produce data with improved quality relative to that produced by conventional mathematical methods. (And this assumes that all the asserted claims even capture these improvements.) So, taking the allegations in HDC’s complaint as true, the asserted claims merely improve or ‘enhance’ an abstract idea” and therefore satisfy the first step of the *Alice* analysis.

Id.

194. The Court further found that “HDC’s complaint fails to allege an inventive concept” in the second step of the *Alice* analysis. *Id.*, 23.

It is of no moment that some asserted claims are limited to a particular field of invention or input data, like “gene expression data” or “biologic data.” [] Nor is it of any significance that some of the mathematical steps are performed with more specificity. Nor that several claims require a generic computer to perform the SVM-RFE process.”

Id., 24. (citation omitted).

195. Plaintiff filed a Notice of Appeal on January 26, 2022. Plaintiff Health Discovery Corporation's Notice of Appeal, Dkt. 68 at 1, *Health Discovery Corporation v. Intel Corporation*, Case No. 6:20-cv-00666-ADA (W.D. Tex. Jan. 26, 2022).

196. On April 4, 2022, one day before Plaintiff's opening brief to the United States Court of Appeals for the Federal Circuit was due, Plaintiff's outside counsel emailed counsel for Intel and stated: "We intend to file a motion to dismiss the appeal under FRAP 42, as HDC will be filing a new complaint in WDTX later today. We will also provide you with a courtesy copy simultaneous with filing." A copy of the April 4, 2022 email is in **Exhibit J**. A computer-generated redline comparison of the July 23, 2020 complaint in the first action and the April 4, 2022 complaint in this action is attached in **Exhibit K**.

197. Plaintiff filed this action alleging that Intel infringes the '188 Patent, '959 Patent, '483 Patent, and '685 Patent that same day.

198. Plaintiff's Complaint does not and cannot plead allegations supporting a finding that the asserted claims of the '188 Patent, '959 Patent, '483 Patent, and '685 Patent claim patentable-eligible subject matter pursuant to 35 U.S.C. § 101.

FIFTH DEFENSE

(Implied License/Patent Exhaustion)

199. Plaintiff's claims for patent infringement are precluded in whole or in part because Intel has an implied license to the patents-in-suit and/or under the doctrine of patent exhaustion.

200. Plaintiff substantially and prejudicially delayed providing Intel with notice of the alleged infringement and filing Plaintiff's complaints for patent infringement. In November 2010, more than 11 years ago, Plaintiff filed U.S. Patent Application No. 12/944,197 in which Plaintiff

copied the then-claims from Intel's '077 Patent. On information and belief, Plaintiff intended to provoke an interference proceeding. Only after further urging from Plaintiff, the Patent Office Patent Trial and Appeal Board filed a Declaration – Bd.R. 203(b) declaring an interference between Eric Q. Li and Quian Diao (Junior Party) and Jason Westin and Isabelle Guyon (Senior Party) in Patent Interference No. 106,066 on September 19, 2016.

201. Shortly after Plaintiff attempted to invoke an interference, Plaintiff also filed a Request for *Ex Parte* Reexamination of the '077 Patent with the United States Patent and Trademark Office on October 3, 2011. The Examiner concluded that the claims were patentable (with amendments to claims 1, 6, and 11) in an August 28, 2012 Notice of Intent to Issue *Ex Parte* Reexamination Certificate. The '077 Patent's *Ex Parte* Reexamination Certificate issued on October 5, 2012.

202. Intel attempted to confer with Plaintiff on at least February 21, 2012 and October 3, 2016, and Plaintiff did not identify any alleged infringement.

203. Specifically, an Intel Senior Patent Attorney sent a letter to counsel for Plaintiff Eleanor M. Musick dated February 21, 2012. The letter stated:

We recently discussed various Health Discovery Corporation patents. Intel respects intellectual property rights. However, at the conclusion of our discussion I was unaware of any current Intel activity that infringes a Health Discovery Corporation patent.

If my understanding is incorrect and you have a patent that you believe applies to Intel's products, please provide us with a comparison of your patent to our products. We would gladly review any additional information you would be willing to provide.

204. Intel outside counsel also spoke with counsel for Plaintiff, Eleanor M. Musick, on October 3, 2016. Eleanor M. Musick confirmed via email to Intel outside counsel that same day:

“As I mentioned during our telephone discussion earlier today, I am not currently aware of any existing commercial products of Intel that overtly incorporate the SVM-RFE method.”

205. Nearly four years later, Plaintiff filed a Complaint for Patent Infringement against Intel on July 23, 2020 in an action styled *Health Discovery Corporation v. Intel Corporation*, Case No. 6:20-cv-00666 (W.D. Tex. July 23, 2020). A copy of the complaint is attached in **Exhibit D**.

206. Despite the passage of nearly a decade between Plaintiff’s reexamination request and the filing of its first patent infringement suit against Intel, Plaintiff’s allegations of infringement failed to specify the accused products or provide a detailed explanation of infringement. *See, e.g.*, Complaint for Patent Infringement, Dkt. 1 at ¶ 44, *Health Discovery Corporation v. Intel Corporation*, Case No. 6:20-cv-00666-ADA (W.D. Tex. July 23, 2020).

207. This lack of explanation and notice continued into Plaintiff’s infringement contentions. Plaintiff filed “Preliminary Infringement Contentions” on December 1, 2020, which failed to identify any specific accused Intel products from the broad categories accused in the Complaint for Patent Infringement and further failed to specify how the products infringed the asserted claims. Intel repeatedly raised this substantive deficiency in Plaintiff’s Preliminary Infringement Contentions, including, for example, a July 9, 2021 letter in which Intel explained that the delay in providing adequate contentions prejudiced Intel and prevented meaningful discovery.

208. Plaintiff served “Final Infringement Contentions” on July 30, 2021, but these contentions were similarly deficient. On August 9, 2021, Intel sent a letter to Plaintiff addressing the substantive deficiencies in Plaintiff’s Final Infringement Contentions.

209. The parties conferred regarding Plaintiff’s deficient contentions and other discovery deficiencies on August 18, August 24, and August 25, 2021. Intel documented these

conferrals in a September 8, 2021 letter to Plaintiff. This letter reiterated the deficiencies in Plaintiff's infringement contentions, including Plaintiff's failure to point to where in any accused product each element of an asserted claim is found. During these conferrals, outside counsel for Plaintiff conceded that Plaintiff was not aware of any Intel processor products that include SVM-RFE functionality.

210. Plaintiff never amended its Final Infringement Contentions. As a result, over a year since the start of the previous litigation and over a decade since Plaintiff first challenged Intel's '077 Patent, Plaintiff has not identified a specific accused Intel product or explained how Intel's products and/or services purportedly infringe the asserted patents.

SIXTH DEFENSE

(Prosecution Laches)

211. Plaintiff is barred in whole or in part under principles of equity, including prosecution laches, through its delay in prosecution and assertion of the patents-in-suit.

212. The '188 Patent purports to claim priority to U.S. Provisional Application No. 60/083,961, filed on May 1, 1998, but did not issue until more than 18 years later on October 3, 2006.

213. The '685 Patent and '483 Patent purport to claim priority to U.S. Provisional Application No. 60/161,806, filed on October 27, 1999, but did not issue until nearly 20 years later on September 3, 2019, and more than 12 years later on January 10, 2012, respectively.

214. The '959 Patent purports to claim priority to U.S. Provisional Application No. 60/191,219, filed on March 22, 2000, but did not issue until more than nine years later on June 2, 2009.

SEVENTH DEFENSE

(Limitation on Damages / Failure to Mark)

215. Any claim by Plaintiff for damages is limited under 35 U.S.C. §§ 286 or 287. To the extent that Plaintiff seeks damages otherwise accruing prior to six years before it filed the Complaint, such damages are barred by 35 U.S.C. § 286. The relief sought by Plaintiff is further limited by 35 U.S.C. § 287 to the extent the owner(s) of the patents-in-suit, and/or their licensees, failed to mark allegedly practicing products. Plaintiff is barred by 35 U.S.C. § 288 from recovering costs associated with its action.

216. On November 9, 2021, Intel served Plaintiff with an *Arctic Cat* notice identifying unmarked patented articles in connection with *Health Discovery Corporation v. Intel Corporation*, Case No. 6:20-cv-00666-ADA (W.D. Tex. Nov. 19, 2021). In light of these unmarked articles, Plaintiff had and continues to have no cause of action or demand for relief against Intel for the asserted patents prior to the filing of its Complaint in this litigation.

217. Intel's *Arctic Cat* notice identified Plaintiff's sale of the unmarked "MelApp melanoma application." Plaintiff's Apple App Store page for the MelApp application stated that the product was covered by one or more patents including U.S. Patent 7,797,257 ("the '257 Patent"). A copy of the '257 Patent is attached in **Exhibit L**. The '257 Patent names the same named inventors of the asserted patents in this action, Stephen Barnhill, Isabelle Guyon, and Jason Weston, and includes claims directed to using "a support vector machine for analyzing data" and the "support vector machine performs recursive feature elimination." On information and belief, Plaintiff's MelApp product practiced one or more claims of the asserted patents but was not marked with the asserted patents.

218. Intel's *Arctic Cat* notice also provided notice of at least one instance in which Plaintiff's purported licensee to one or more of the Asserted Patents made, sold, and/or offered for sale licensed products that were not marked with one or more of the asserted patents.

EIGHTH DEFENSE

(No Injunctive Relief)

219. Plaintiff is not entitled to injunctive relief because any alleged injury to Plaintiff is not immediate or irreparable and Plaintiff has an adequate remedy at law.

NINTH DEFENSE

(Government Sales)

220. To the extent that certain products accused of infringing the patents-in-suit are used by and/or manufactured for the United States Government, Plaintiff's claims against Intel with respect to such products may not be pursued in this Court and are subject to other limitations pursuant to 28 U.S.C. § 1498.

TENTH DEFENSE

(Prosecution History Estoppel)

221. Plaintiff is estopped from construing the claims of the patents-in-suit to cover any product, method, or service offered by Intel under the doctrine of equivalents in view of the statements, arguments, amendments, assertions, and/or representations made by or on behalf of the applicant(s) and/or assignee(s) for the patents-in-suit during proceedings before the United States Patent and Trademark Office both prior to and after issuance of the patents-in-suit.

ELEVENTH DEFENSE

(Ownership/Standing)

222. Plaintiff has failed to provide adequate evidence of ownership of the patents-in-suit and lacks standing to bring suit for alleged infringement of the patents-in-suit.

RESERVATION OF RIGHTS

223. Intel reserves all additional defenses available under Section 35 of the United States Code, the rules, regulations, or laws related thereto, the Federal Rules of Civil Procedure, the Rules of this Court, and/or otherwise in law or equity, now existing, or later arising, as may be discovered

PRAYER FOR RELIEF

224. Intel respectfully requests that Plaintiff's complaint be dismissed in its entirety, with prejudice, that this case be found exceptional under 35 U.S.C. § 285, and that Intel be awarded its reasonable attorneys' fees, costs, expenses and such further relief as the Court may deem just and proper pursuant to 35 U.S.C. § 285; and that the Court grant Intel such other and further relief as this Court may deem just and proper in the circumstances.

DEMAND FOR JURY TRIAL

Pursuant to Federal Rule of Civil Procedure 38(b), Defendant Intel Corporation demands a trial by jury on all issues so triable.

Dated: June 13, 2022

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CERTIFICATE OF SERVICE

I hereby certify that, on June 13, 2022, I electronically filed the foregoing with the Clerk of Court using the CM/ECF system, which will send notification of such filing to all counsel of record.

/s/ Kourtney Mueller Merrill